

## AMENDMENTS TO THE CLAIMS

Please amend the claims as set forth in the following listing. This listing of claims will replace all prior versions, and listings, of claims for the present application:

1. (Previously Presented) An isolation barrier for conveying an electrical signal from a transmitting circuit to a receiving circuit while electrically isolating the transmitting circuit from the receiving circuit, comprising:
  - an isolation capacitor;
  - a synchronous analog-to-digital converter having an input connected to the transmitting circuit for receiving the electrical signal to be transmitted across the barrier, and an output connected to a first side of the isolation capacitor for providing a synchronous digital signal to the isolation capacitor;
  - a synchronous digital-to-analog converter having an input connected to a second side of the isolation capacitor for receiving the synchronous digital signal therefrom, and having an output connected to the receiving circuit for providing an analog signal thereto.

Claims 2-45 (Canceled).